

PATENT ABSTRACTS OF JAPAN

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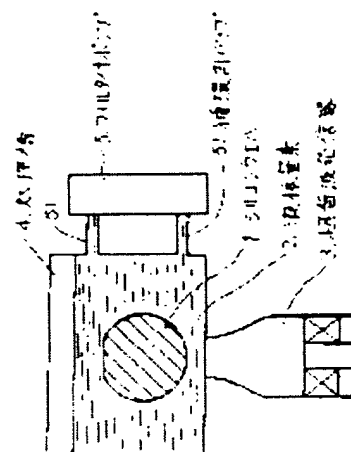
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(54) REMOVAL OF CONTAMINATION BY FINE PARTICLE

(57)Abstract:

PURPOSE: To remove contamination without damaging an electronic device by a method wherein an object whose surface has been contaminated with fine particles is immersed in liquid nitrogen and an ultrasonic cleaning operation is executed.

CONSTITUTION: An object 1 whose surface has been contaminated with fine particles is immersed in liquid nitrogen 2; an ultrasonic cleaning operation is executed. Adhesive power of the fine particles which have adhered to the object is weakened at a low temperature. In the case of an organic substance, the adhesive power to the object is lowered at a glass transition temperature or lower; surface tension between solid bodies becomes large at a lower temperature and they are stripped off easily. A low-temperature liquid is boiled on the surface of the object; an air bubble is generated from a place where the fine particles have adhered and removes the fine particles physically. Thereby, without damaging an electronic device it is possible to remove contamination by the fine particles which have adhered on the surface.



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